

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A process for preparing a compound having a nonaromatic C-C double or triple bond (compound A) from another compound or a mixture of other compounds having a nonaromatic C-C double or triple bond (compound B) by metathesis, which comprises bringing the compound (B) into contact with a heterogeneous catalyst comprising carbides or oxycarbides of a transition element at from 50 to 500°C.
2. (Original) A process as claimed in claim 1, wherein the compound (B) is selected from the group consisting of C2-C12-olefins, substituted C2-C12-olefins and mixtures of the abovementioned compounds.
3. (Currently Amended) A process as claimed in ~~any of the preceding claims~~ Claim 1, wherein the heterogeneous catalyst is selected from the group consisting of molybdenum carbide, molybdenum oxycarbide, tungsten carbide, tungsten oxycarbide and mixtures of the abovementioned compounds.
4. (Currently Amended) A process as claimed in ~~any of the preceding claims~~ Claim 1, wherein the heterogeneous catalyst ~~used~~ is a supported catalyst in which a carbide or oxycarbide of a transition element forms ~~the~~ an active component (activator A) which has been applied to a ~~eustomary~~ support (support S).
5. (Original) A process as claimed in claim 4, wherein the proportion of activator (A) in the supported catalyst is from 0.1 to 30% by weight.
6. (Currently Amended) A process as claimed in claim 4 ~~or 5~~, wherein the heterogeneous catalyst ~~used~~ is a supported catalyst whose support (S) is selected from the group consisting of Al₂O₃, aluminosilicates, Ga₂O₃, SiO₂, GeO₂, TiO₂, ZrO₂, SnO₂ and mixtures of the abovementioned compounds.
7. (Currently Amended) A process as claimed in ~~any of claims~~ Claim 4 to 6, wherein the supported catalyst is prepared by

- a.1) impregnating the support (S) with a solution of a compound of a transition element (step a.1),
- b.1) subsequently drying and then calcining the support (S) which has been impregnated in step a.1) (step b.1),
- c.1) heating the support (S) from step b.1 at from 550 to 1 000°C in an atmosphere comprising a hydrocarbon compound and hydrogen (step c.1)

8. (Currently Amended) A process as claimed in ~~any of claims~~ Claim 4 to 7, wherein ~~the heterogeneous catalyst used is a supported catalyst which is obtainable~~ prepared by

- a.2) applying a carbide or oxycarbide of a transition element to a ~~customary~~ support so as to produce a catalyst precursor (a.2) (step a.2),
- b.2) bringing the catalyst precursor (a.2) into contact with a hydrocarbon compound at from -20 to 550°C (step b.2) and
- c.2) heating the catalyst precursor from step (b.2) at from 410 to 850°C in an inert gas atmosphere (step c.2).

9. (Currently Amended) A process as claimed in ~~any of claims~~ Claim 4 to 8, wherein a said hydrocarbon compound is selected from the group consisting of C1-C20-alkanes, -cycloalkanes, -olefins, -cycloolefins, -alkynes, -cycloalkynes, aromatics and mixtures of the abovementioned compounds ~~is used in step (b.2)~~.

10. (Currently Amended) A process as claimed in ~~any of claims 4 to 9~~ Claim 8, wherein ~~an~~ said inert gas is selected from the group consisting of nitrogen, carbon dioxide and noble gases and mixtures thereof ~~is used in step c.2)~~.

11. (New) A process as claimed in Claim 1, wherein said compound (B) is selected from the group consisting of hydrocarbons having from 2 to 12 carbon atoms, and mixtures thereof.

12. (New) A process as claimed in Claim 1, wherein said process is a process for preparing propene by metathesis of a mixture comprising 2-butene and ethylene or 1-butene and 2-butenes.

13. (New) A process as claimed in Claim 1, wherein said process is a process for preparing 3-hexane and ethylene by metathesis of 1-butene.

14. (New) A process as claimed in Claim 1, wherein said process is carried out continuously in the gas phase at a temperature from 100 to 500°C and a pressure of 5-50 bar.

15. (New) A process as claimed in Claim 14, wherein the WHSV over the catalyst is 1 to 30 g of compound (B) per g of catalyst per h.

16. (New) A process as claimed in Claim 1, wherein said compound (B) is a raffinate II.

17. (New) A process as claimed in Claim 16, wherein said raffinate II has a butene content of from 30 to 100% by weight.

18. (New) A process as claimed in Claim 16, wherein said raffinate II has a butene content of from 40 to 98% by weight.

19. (New) A process as claimed in Claim 16, wherein said process is carried out continuously in the gas phase at a temperature from 100 to 500°C and a pressure of 5-50 bar.

20. (New) A process as claimed in Claim 19, wherein the WHSV over the catalyst is 1 to 30 g of compound (B) per g of catalyst per h.